

# Claims

- [c1] 1. A multi-wire connector with interlocking device, said connector being of the type comprising a body (1) provided with a plurality of first connection terminals connected to respective conductive wires (W) projecting from a top portion, which body (1) is susceptible of fitting through the lower portion of a cavity (21) of a base piece (2) provided with other such second connection terminals provided for coupling with said first connection terminals when the body (1) is in coupling position within said cavity (21), a "U"-shaped support (10) being arranged projecting from said body (1), and a lever (3) comprising a bridge (30) and arms (31) jointed at their ends with regard to opposite sides of the body (1) by means of projections (11), so that said lever (3) can rotate a certain angle, limited by stop configurations (12, 13), between an open position and a closed position, wherein said bridge (30) co-operates with said support (10) to confine said conductive wires (W), forming a bundle, locking configurations being arranged to immobilize the lever (3) in said closed position, characterized in that means are provided for releasably interlocking the body (1) in said coupling position in said cavity (21) of the

base piece (2), which means comprise at least a first interlocking configuration (33), integral to a portion (32) of the lever (3), and at least a second interlocking configuration (22), integral to an inner side wall of the cavity (21), in respective positions such that, when the body (1) is introduced in the cavity (21) with the lever (3) in said open position, said first and second interlocking configurations (33 and 22) do not interfere with each other, whilst when the lever (3) is placed in the closed position, the body (1) being in said coupling position, said first interlocking configuration (33) interferes with said second interlocking configuration (22), remaining both interlocked with each other, preventing extraction of the body (1) from the cavity (21).

[c2] 2. A connector as claimed in Claim 1, characterized in that the lever (3) includes one of said portions (32) at the end of each arm (31), each portion (32) being arranged so that the corresponding first interlocking configuration (33) remains close to a coupling hole for the corresponding joint snug (11), and in that the cavity (21) includes two of said second interlocking configurations (22) arranged on opposite inner side walls thereof.

[c3] 3. A connector as claimed in Claim 2, characterized in that said portions (32) with the first interlocking configurations (33) are arranged at one side of said coupling

hole angularly displaced from the rest of the arm (31).

- [c4] 4. A connector as claimed in Claim 3, characterized in that the body (1), said base piece (2), and the lever (3) are made of a slightly resilient material allowing mutual interlocking of the first and second interlocking configurations (33 and 22) by the passage of at least part of the first ones over at least part of the second ones by means of a certain elastic deformation of said pieces.
- [c5] 5. A connector as claimed in Claim 4, characterized in that it comprises two pairs of said stop configurations (12, 13), which adopt the form of first and second protuberances (12, 13) arranged on said opposite sides of the body (1) in such positions that they respectively interfere with first and second edges (34, 35) of opposite sides of the arms (31) of the lever (3) when the same is respectively in the open and closed positions.
- [c6] 6. A connector as claimed in Claim 5, characterized in that said locking configurations to immobilize the lever (3) in the closed position comprise locking protuberances (15) arranged at the end of respective flexible tabs (16), extension of said opposite sides of the body (1) and projecting over the top portion thereof, the flexible tabs (16) of which are bent towards the inside when the lever (3) is displaced from the open position to the closed po-

sition, due to the effect of forces exerted by the arms (31) against tapered or rounded edges of said locking protuberances (15), allowing for the passage of the lever (3) towards the closed position, and the flexible tabs (16) of which recover resiliently when the lever (3) overcomes the locking protuberances (15), which occurs immediately after said second edges (35) of the arms (31) have abutted against the second protuberances (13) and, by virtue of which, the locking protuberances (15) interfere with said first edges (34) of the arms (31), whereby the lever (3) is immobilized in the closed position in which in addition said first and second interlocking configurations (33 and 22) are mutually interlocked.

- [c7] 7. A connector as claimed in Claim 6, characterized in that the arms (31) of the lever (3) include in addition respective windows (36) in which fit retention protuberances (14) located on the sides of the body (1) to releasably immobilizes the lever (3) in the open position when the lever (3) is in said open position.